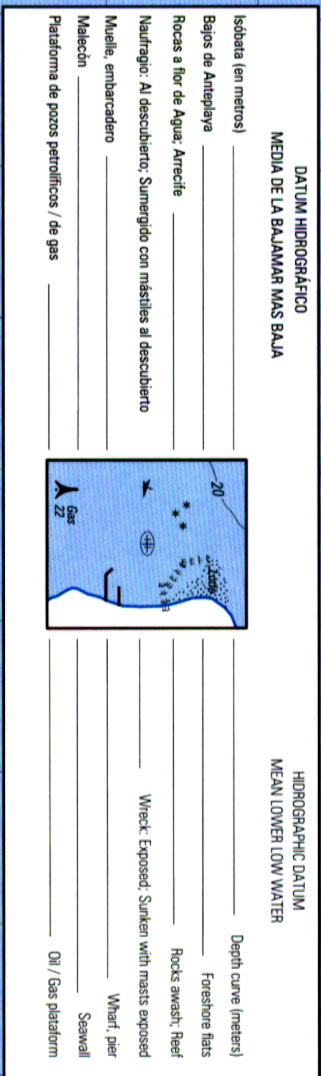




EVALUATION OF CALCULUS IN 100 MARKS	
SECTION A: 10 MARKS QUESTIONS 1. Explain the term partial differential equations. 2. Solve the partial differential equation $\frac{\partial z}{\partial x} + \frac{\partial z}{\partial y} = 0$ by the method of separation of variables. 3. Find the particular solution of the differential equation $\frac{dy}{dx} + y = e^x$ given that $y = 0$ when $x = 0$. 4. Evaluate the definite integral $\int_0^1 x^2 dx$ using the fundamental theorem of calculus. 5. Find the area under the curve $y = x^2$ from $x = 0$ to $x = 2$. 6. Differentiate $\sin(x)$ with respect to x. 7. Integrate $\cos(x)$ with respect to x. 8. Find the derivative of e^x with respect to x. 9. Find the derivative of $\ln(x)$ with respect to x. 10. Find the derivative of x^2 with respect to x.	
SECTION B: 10 MARKS QUESTIONS 1. Solve the partial differential equation $\frac{\partial z}{\partial x} + \frac{\partial z}{\partial y} = 0$ by the method of separation of variables. 2. Find the particular solution of the differential equation $\frac{dy}{dx} + y = e^x$ given that $y = 0$ when $x = 0$. 3. Evaluate the definite integral $\int_0^1 x^2 dx$ using the fundamental theorem of calculus. 4. Find the area under the curve $y = x^2$ from $x = 0$ to $x = 2$. 5. Differentiate $\sin(x)$ with respect to x. 6. Integrate $\cos(x)$ with respect to x. 7. Find the derivative of e^x with respect to x. 8. Find the derivative of $\ln(x)$ with respect to x. 9. Find the derivative of x^2 with respect to x. 10. Find the derivative of x^3 with respect to x.	
SECTION C: 10 MARKS QUESTIONS 1. Solve the partial differential equation $\frac{\partial z}{\partial x} + \frac{\partial z}{\partial y} = 0$ by the method of separation of variables. 2. Find the particular solution of the differential equation $\frac{dy}{dx} + y = e^x$ given that $y = 0$ when $x = 0$. 3. Evaluate the definite integral $\int_0^1 x^2 dx$ using the fundamental theorem of calculus. 4. Find the area under the curve $y = x^2$ from $x = 0$ to $x = 2$. 5. Differentiate $\sin(x)$ with respect to x. 6. Integrate $\cos(x)$ with respect to x. 7. Find the derivative of e^x with respect to x. 8. Find the derivative of $\ln(x)$ with respect to x. 9. Find the derivative of x^2 with respect to x. 10. Find the derivative of x^3 with respect to x.	

